## REMARKS

This is in response to the Final Office Action, dated January 19, 2005, where the Examiner has rejected claims 1, 3-10, and 12-18. An early allowance of claims 1, 3-10, and 12-18 in view of the following remarks is respectfully requested.

### A. Rejections of Claims 1, 3-10, and 12-18 under 35 USC § 103(a)

The Examiner has rejected claims 1, 3-10, and 12-18 under 35 USC § 103(a) as being unpatentable over U.S. Patent Number 6,456,964 to Manjunath, et al. ("Manjunath") in view of U.S. Patent Number 5,778,338 to Jacobs, et al. ("Jacobs").

Manjunath is directed to the encoding of quasi-periodic speech using prototype waveforms. The speech signal is represented by a residual signal generated by filtering the speech signal with a Liner Predictive Coding (LPC) analysis filter. The residual signal is encoded by extracting a prototype period from a current frame of the residual signal. Parameters are calculated that describe how to modify a previous prototype period to approximate the current prototype period.

The Examiner asserts that Manjunath, at column 5, line 55 to column 6, line 14, teaches estimating a spectral content of a speech signal by determining a defined reference spectral response representative of the spectral content of the speech signal. However, upon review of the cited section of Manjunath, it is apparent that Manjunath simply teaches classifying the current frame as containing either "active" or "inactive" speech. Manjunath also teaches further classifying active frames as voiced, unvoiced, or transient. Applicant respectfully submits that Manjunath does not even mention or make any reference to "estimating a spectral content of a

speech signal", whatsoever, let alone "estimating a spectral content of a speech signal determining a defined reference spectral response representative of the spectral content of the speech signal." Although in the present Office Action the Examiner states that the applicant's arguments are moot in view of the new ground(s) of rejection, applicant notes that the Examiner is still relying on Manjunath to show the element of "estimating a spectral content of a speech signal determining a defined reference spectral response representative of the spectral content of the speech signal", without providing any further explanation as to where and how the disclosure of Manjunath, at col. 5, line 55 through col. 6, line 14, teaches such limitation, since Manjunath makes no reference to "the spectral content of the speech signal", whatsoever. Applicant's position still remains that the cited portion of Manjunath does not come close to teaching such limitation. If the Office Action is erroneously citing col. 5, line 55 through col. 6, line 14 of Manjunath, applicant respectfully requests a correct citation and removal of the finality of the Office Action, so that applicant is given a fair opportunity to respond to the Office Action. In the alternative, applicant respectfully requests at least some explanation by the Examiner regarding the Examiner's understanding of cited portions, so that applicant is given a fair opportunity to respond to the Office Action. Applicant respectfully draws the Examiner's attention to MPEP § 706.02(j), which states: "It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply."

The Examiner further asserts that Manjunath teaches, at column 6, line 38 to column 7, line 10, "selecting a preferential coding algorithm from an assortment of coding algorithms based on the estimated spectral content of the speech signal; coding the speech signal in accordance

with the selected coding algorithm ...." However, this section of Manjunath merely discloses various modes used to code frames having different classifications. These modes include CELP mode, Prototype Pitch Period ("PPP") mode, and Noise Excited Linear Predictive ("NELP") mode. This section of Manjunath also teaches that the same coding technique can frequently be operated at different bit rates, with varying levels of performance. However, this section of Manjunath does not remotely disclose or suggest that the coding algorithm is selected based on the estimated spectral content of the speech signal. Again, the Examiner states that the applicant's arguments are moot in view of the new ground(s) of rejection, but applicant notes that the Examiner is still relying on the teaching of Manjunath, at column 6, line 38 to column 7, line 10, to show this element of claim 1. If the Office Action is erroneously citing this section of Manjunath, applicant respectfully requests a correct citation and removal of the finality of the Office Action, so that applicant is given a fair opportunity to respond to the Office Action. In the alternative, applicant respectfully requests at least some explanation by the Examiner regarding the Examiner's understanding of the cited portion, so that applicant is given a fair opportunity to respond to the Office Action.

Moreover, the Examiner acknowledges that, in contrast to independent claims 1 and 10, Manjunath does not disclose, teach, or suggest the coding of the speech signal in Manjunath is in accordance with a selected coding algorithm based on an estimated spectral content of the speech signal to compensate for at least one of a spectrally flat speech signal, an IRS speech signal, and a MIRS speech signal to produce a frequency-response compensated speech signal. However, the Examiner relies on Jacobs to show such limitation. First, applicant respectfully submits that since Manjunath does not even refer to "estimating a spectral content of a speech signal

determining a defined reference spectral response representative of the spectral content of the speech signal" or "selecting a preferential coding algorithm from an assortment of coding algorithms based on the estimated spectral content of the speech signal", there cannot be any disclosure, teaching or suggestion by either Manjunath or Jacobs to modify Manjunath to select coding algorithm based on an estimated spectral content of the speech signal to compensate for at least one of a spectrally flat speech signal , an IRS speech signal, and a MIRS speech signal to produce a frequency-response compensated speech signal. Second, conventional systems, such as those described in Jacobs, do not select a preferential coding algorithm based on the estimated spectral content of the speech signal, and for example, if the coder is tuned for flat speech signal, the coder would not be optimized to operate on MIRS speech, and vice versa. Because conventional systems are tuned to the speech signal having a specific stationary spectral characteristic (e.g. either flat or MIRS), conventional systems have no need to discriminate between stationary spectral characteristics in order to select a preferential coding algorithm coding algorithm based on the spectral content of the speech signal. Jacobs follows the conventional wisdom and, in fact, teaches away from analyzing and determining stationary spectral characteristics in order to select a preferential coding algorithm coding algorithm based on the spectral content of the speech signal. This drawback of conventional systems, however, has been remedied by the present invention, which estimates a spectral content of the speech signal and selects a preferential coding algorithm coding algorithm based on the spectral content of the speech signal.

For the foregoing reasons, applicant respectfully submits that the present invention as defined by independent claims 1 and 10 is not taught, disclosed, or suggested by the art of record.

Thus, independent claims 1 and 10 are patentably distinguishable over the art of record. As such, the claims depending from amended independent claims 1 and 10 are, *a fortiori*, also patentable for at least the reasons presented above and also for additional limitations contained in each dependent claim.

**B. Conclusion**

Based on the foregoing reasons, an early notice of allowance for claims 1, 3-10, and 12-18 remaining in the present application is respectfully requested.

Respectfully Submitted,
FARJAMI & FARJAMI LLP

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